# Specialist Module with Workshop: Psychophysiological Techniques for Relaxation and Empowerment

## Prof. Davide Crivelli

***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

*Course Aims*

The aim of the course is to provide a theoretical-methodological overview and a chance to experiment with the main applications of psychophysiological techniques for relaxation and empowerment in relation to the most relevant cognitive and emotional processes.

In order to focus on learning through experience, the presentation of the mechanisms of action of the most relevant practices and the guidelines for using them will be accompanied by work with techniques and psychophysiological tools.

*Intended learning outcomes*

*Knowledge and understanding* - At the end of the course, students will know the general principles of psychophysiological methods and techniques for promoting relaxation and stress-management techniques, as well as the affect and cognitive regulation skills.

*Ability to apply knowledge and understanding* - Students will be able to critically consider the potential and limitations of various techniques and select a plan of intervention for a particular context or target population and to implement the selected techniques in a person-oriented work plan, beginning with the assessment phase and definition of the user's functional and cognitive-affective profile.

*Independent judgment, Communication skills* - Students will also be able to construct an ideal workplan based on a critical analysis of the existing and put it into action by means of a proposed innovative intervention and defined communication methods appropriate to the target for which such intervention is designed.

***COURSE CONTENT***

In view of the connection between mind and body, integrated tools and psychophysiological techniques can help fostering subjective wellbeing and empowerment of the affective/cognitive profile in normal and subclinical contexts.

The course will critically examine the main operational principles and application outcomes of the major psychophysiological techniques used to facilitate relaxation and greater control of physiological responses (e.g. biofeedback), as well as promote deeper bodily awarenessor enhance and recover cognitive abilities such as concentration and attention (e.g. neurofeedback, embodied awareness techniques).

The course will also provide methodological and practical notes for the correct use of techniques and psychophysiological tools and techniques, as well as of derived practices used in psychological intervention settings.

Finally, the course will address the topics of designing and planning psychophysiological interventions aimed at cognitive empowerment, promotion of wellbeing, and stress management.

The course programme will be broken down into the following units:

Unit 1 - Introduction to Applied Psychophysiology

1.1 Origins, foundations and definition of the approach

1.2 Practical notes on physiology and anatomy

1.3 Scope and structure of an applied psychophysiology intervention for the promotion of relaxation and cognitive-affective empowerment

1.4 The object of the intervention: the mind-body system

1.5 Between self-awareness and self-regulation

Unit 2 - Assessment

2.1 Definition, objectives, structure and setting of the psychological and neuropsychological assessment

2.2 Psychometric and neuropsychological tools and tests for the assessment

2.3 Paper-pencil, observational and computerised tools

2.4 Definition, objectives, structure and setting of the psychophysiological assessment

2.5 Target of the psychophysiological assessment

- Sympathetic, parasympathetic and somatic activation markers, central control of the autonomic somatic nervous system

- Electrodermal activity: detection and evaluation

- Cardiovascular activity: detection and evaluation

- Electromyographic activity: detection and evaluation

- Physiological stress response, reactivity assessment and psychophysiological recovery

- Methods for the induction of affective responses and cognitive stressors

Unit 3 - Intervention

3.1 Conception and design of intervention plans with psychophysiological techniques

3.2 The biofeedback technique

- Objective and purpose of the technique

- Principles of operation and application implications

- Procedures for correct use and guidelines

- Applied protocols

3.3 The neurofeedback technique

- Objective and purpose of the technique

- Principles of operation and application implications

- Procedures for correct use and guidelines

- Applied protocols

3.4 Relaxation techniques based on breathing and muscle contraction

- Objective and purpose of the techniques

- Principles of operation and application implications

- Procedures for correct use and guidelines

- Applied protocols

3.5 Body and mental awareness techniques

- Objective and purpose of the techniques

- Principles of operation and application implications

- Procedures for correct use and guidelines

- Applied protocols

Unit 4 - Evaluation of effectiveness

4.1 Procedures and designs for evaluating effectiveness

4.2 Review of applied statistics

4.3 Evidence-based intervention perspective

***READING LIST***

Reference material relating to the issues addressed will be indicated during the meetings and made available on the Blackboard platform. Students will prepare by studying the lecture notes, completing the practical experiential activities, and conducting critical analysis and reworking of the supplementary materials (scientific articles) published on the Blackboard platform.

***TEACHING METHOD***

Frontal lectures, practical tutorials on the psychophysiological tools and on evaluation and intervention protocols for enhancing and promoting relaxation, and simulations and in-depth activities in small groups.

***ASSESSMENT METHOD AND CRITERIA***

*Assessment method*

Students' theoretical and practical knowledge will be assessed through the evaluation of an intervention project developed and written in a small group (group project), a related oral presentation, and the simulation of one meeting illustrating the intervention.

*Assessment criteria*

Assessment and final pass mark will be based on the use of psychophysiological techniques, the use of specific terminology, the structure and consistency of the project, the feasibility of proposals and students’ ability to intercept possible areas of intervention, and students’ ability to effectively present their own project ideas.

***NOTES AND PREREQUISITES***

*Prerequisites*

Students should have basic knowledge of models and tools of neuroscience, also in relation to the approach of positive psychology and the neuroscience of wellbeing.

Further information can be found on the lecturer's webpage at http://docenti.unicatt.it/web/searchByName.do?language=ENG, or on the Faculty notice board.